Road, Administrative and Recreation Site Maintenance (RARSM) August 2016 Decision Notice/Finding of No Significant Impact Post-Implementation Monitoring Field Trips

June 13, 2017: Central Zone; June 14, 2017: South Zone

(Also includes notes from November 2016 Field Trips)

Key Points and Highlights

Need to consider the appropriate level of risk to FS and non-FS crews. Need to consider the "transfer of risk" when contracting with non-FS crews. Many trees in the drop and leave areas were "C" Faller trees, but were being cut by "B" Fallers.

We had FS crews working in areas that were subsequently dropped, which was an unnecessary risk.

Need to get clarification and have the following questions answered: What is considered baseline detrimental disturbance when determining additional disturbance related to timber activities? Should the burned soil be used as the baseline for soil disturbance? What is considered detrimentally disturbed?

Average number of wildlife snags should be at the project level, not at the unit level.

Need to use the un-edited standard pick list when proposing design features, unless site-specific conditions warrant otherwise and prior approval is granted by the line officer.

Need to conduct field verification as models tend to over-estimate the risk of landslides.

Design Feature requirements (i.e. requiring equipment to stay on the roads) dictated operational methods which impacted the ability of equipment to do its job effectively in some cases, causing more impacts rather than minimizing impacts.

What is the appropriate level of management in RHCAs with regards to hazard trees?

Shuffling of employees across the Forest to create multiple NEPA teams caused confusion and disconnect.

NEPA was challenging: Initially cleared lots of acres but implemented a small portion due to soil disturbance and landslide concerns.

Lessons Learned and Future Opportunities

Plan project areas such that adjacent project units are not operationally dependent on each other;

Aim to maintain IDT configuration consistency when possible;

Emphasize Interdisciplinary monitoring to better inform future projects;

Continue public information and outreach efforts;

Consider bringing in an outside team to conduct NEPA on similar projects in the future so that local staff can focus on completing previously-assigned work;

Gain a clear understanding and definition of what constitutes detrimental soil disturbance;

Try to find a means of building in more flexibility in future NEPA projects

Attendees (6/13):
Zoanne Anderson, NEPA Planner
Jenni Blake, Moose Creek District Ranger
Wes Case, Central Zone Silviculturist
Mark Craig, Contracting Officer
Shawn Gaines, Central Zone Fire Management Officer
Scott Godfrey, Vegetation and Stewardship Staff Officer
Dan Hickey, NEPA Planner Intern
Lois Hill, Environmental Coordinator
Brandon Knapton, Lochsa District Ranger
Tim Lewis, Trails Technician
Cheryl Probert, Forest Supervisor
Brett Rogers, Forest Safety Manager
Andrew Skowlund, North Fork District Ranger
Karen Smith, Central Zone Fisheries Biologist
Drew Stroberg, Acting Timber Management Officer
Tam White, Central Zone Timber Management Assistant

Attendees (6/14):
Zoanne Anderson, NEPA Planner
Kevin Barger, Fire
Robert Bergstrom, Forest Plan Revision Soils Coordinator
Josh Bransford, Red River District Fire Management Officer
Crystal Dannar, Range Program Manager
Scott Godfrey, Vegetation and Stewardship Staff Officer
Susan Harries, South Zone Silviculture Technician
Jeremy Harris, South Zone Recreation Planner
Dan Hickey, NEPA Planner Intern
Andrew Lane, South Zone Timber Management Assistant
Tim Lewis, Trails
Jim Lutes, Wildlife
Terry Nevius, Red River District Ranger

Zach Peterson, Forest Planner
Mike Pruss, Forest Wildlife Program Manager
Alex Rozin, South Zone Soils
Jeff Shinn, Salmon River District Ranger
Rich Stiles, Salmon River District Fire Management Officer
Drew Stroberg, Acting Timber Management Officer
Cynthia Valle, Forest Hydrologist
Michelle Windsor, Ecosystem Staff Officer

June 13th (Central Zone)

Introduction

This trip visited post-harvest units along Road 103 and in Pete Forks Campground. Timber harvest treatments included shovel logging, drop and leave areas, and hand-piling of heavy dead Mountain Hemlock. Two completed road decommissioning projects near the Yoosa Creek hatchery were also reviewed.

CZ Stop 1: Potential Cedar Product CE

This site was not included in the RARSM NEPA analysis. The burned area is a 400- to 500-foot-wide strip extending for about ¼ mile along Road 103, from the road to the ridgetop. This site is a potential cedar product sale that could be done under a CE.

Cheryl comments: The only reason the RARSM analysis was switched from a CE to an EA was because of public concerns. This site could probably be harvested under the road maintenance CE category.

CZ Stop 2: Timber Sale Unit 10

This area was part of the Pete Forks fire adjacent to Road 103. There is inventoried roadless on the other side of the ridge. Road 104 is well-traveled.

This unit was logged early in summer 2016. Logs were cable-yarded up to the road. It was a short skid without much ground disturbance. Hazard trees were removed within two tree lengths of the road (approximately 200 feet). Riparian areas reduced the area available to be treated. Riparian areas had a Drop and Leave prescription. This unit was ideal for shovel logging, with less than 35% slope. Minimal soil disturbance occurred.

Mountain Hemlock (MH) discussion: MH is mostly good for pulp. MH at lower elevations doesn't twist as much as at high elevations, resulting in better wood grain quality. MH has virtually no commercial value even though it is considered a commercial species. It needs special drying or it is not marketable. Clearwater Forest Industries (CFI) bought MH on Sheep Mountain for landscape timbers but we would need to build a market to sell it as pulp.

This was planned as a two-stage project. Roadside hazard tree removal would have been stage one, and the Upper Lolo Salvage project would have been stage two. Other salvage sales were also proposed after the 2015 fires, but most were dropped because of political uncertainty resulting from public controversy, the Johnson Bar adverse PI decision, and active anti-salvage groups expressing concerns agency-wide. Upper Lolo Salvage would also have had issues related to consultation that would probably have resulted in loss of timber value before the NEPA could be completed. Chair Point on the South Zone was dropped because soil surveys may have been needed; Cheryl had safety concerns about soil surveys being conducted under standing burned snags. Potential roadside hazard tree removal on the South Zone resulted in similar safety concerns.

The prescription was changed to "drop and leave" on closed roads and roads adjacent to Inventoried Roadless Areas. On Road 460/Tom Beall Roads, equipment was kept on the road. Many tradeoffs were implemented to avoid potential resource impacts. "Safety and risk transfer" concerns were considered when making other tradeoffs.

Internal "buyoff" became an issue because people were brought in to work on the hazard tree removal NEPA who were not familiar with this area.

A patch of timber near the ridgetop/roadless area looked green earlier but it appears to be dead now. There is a likelihood of additional mortality in the future. Our mortality guidelines would have indicated that those trees were "green needle dead trees." It can take five years for trees to die. Bark beetles move in early after a fire and the beetle population grows, then beetles can spread to areas outside the fire lines.

The Boundary Fire is a "poster child" for a re-burn situation. Typically the tops of trees die within 3-5 years, resulting snags can stand for 10-12 years, then the snags fall and provide fuel for a re-burn. This process is species-dependent. Regeneration in the Weitas watershed was delayed for decades due to re-burn.

Burned timber has 2-3 years to remain commercially viable, depending upon the species. Johnson Bar timber started at more than 30 MMBF (post-fire in 2014) but is down to less than 14 MMBF now (2017). Checking is not the only issue; the value of the timber is also affected—mostly because of the subsequent beetle infestation and resulting introduction of blue stain fungus, which reduces the product's marketability. Older trees will make utility grade boards instead of premium.

There were soil concerns but we are meeting regional standards for soils. The time spent doing surveys is one factor to be considered when estimating whether timber harvest would have more effect than fire/reburn (i.e., fire effects versus logging effects). The IPNF doesn't do soil surveys within 200 feet of roads but they are meeting the same regional standards that we have to meet.

Should we be doing more now with the remaining fuels, knowing that fire will return? We are currently setting up soil surveys. Detrimental soil disturbance is a proxy for soil productivity, which is an NFMA requirement.

Fire is inevitable. We may need to look at green sales as if the trees are already black. We might also need to look at roadside hazard tree removal in areas needed for suppression, anticipating future burns. We buck 500 trees per year off of mainline roads every year for maintenance; maybe it would be possible to get ahead of that. We make better decisions if it's not an emergency situation; strategic decision-making is better. In Dixie Comstock, for example, we are considering six-mile fuel breaks.

Leaving soils with less than 15% DSD on completion of activities complies with regional soil standards. There is a recovery period after de-compaction before the soil settles. Our definition of "when activities are complete" is part of the solution. Disturbed soil isn't always detrimental. Seral species need mineral soil to germinate. It is also important to look at road decommissioning projects to see how trees grow post-decommissioning. Trees can have the same shape and form on decommissioned roads as adjacent trees that are not growing within the former road prism. Also our definition of "disturbance" is subjective. Someone accustomed to farm ground would define "disturbance" differently. We need consistent opinions between our soil scientists.

We also should push the RO about monitoring. We don't have to do all of it on this Forest. Ash cap soils help; IPNF and Kootenai also have ash cap. The RO should compile monitoring data so everyone can use it. This would result in greater consistency and a larger data pool to draw from.

Snags are available across the landscape. Their location and juxtaposition provide adequate habitat for wildlife species. We need to follow forest plan snag guidelines. Consider how much cavity nester habitat has been created in the past 5 years. Follow up from Wes Case: Forest Plan snag averages are supposed to be met at the project area level, not the unit level. This has been misinterpreted in the past. The Bollenbacher paper used forest inventory information to create his analysis. In the NPFP the standard is not snags per acre; it's snags per 100 acres. This has also been misinterpreted by IDTs in the past. We also should count snags within RHCAs.

CZ Stop 3: Shovel Logged Unit

Shovel loggers may result in much less soil compaction. However, Cara Farr's monitoring indicates 2-4% disturbance, which is comparable to skidding. The operator makes a big difference in the final result.

Next steps in this location would be to plant Larch, Douglas fir, and White Pine. Burning is possible with the easy slopes but may not be necessary. Mechanical site prep would be a good option (similar to Powell Divide). We need to consider how we define "fully stocked."

The 200-foot distance to the road led to problems. Using line skidding with trees that were not long enough to hit the road was a safety issue because of downhill drags. On steeper line skidding ground this was more of a problem. It was also a production issue because more hand work was needed because of downhill single-lining. For a skyline machine with a boom, cut banks more than 5 feet high meant a higher boom tower was needed. The tong thrower also brought rocks and debris that made short drags challenging. This can be dealt with contractually through mandatory or optional removal. The purchaser would be willing to go to greater

expense to get cedar. Trees beyond 150 feet were a problem because logs "free wheel" the last 50 feet or so.

It was difficult for the crews laying out the cutting unit to interpret the design feature requiring that the unit boundaries be laid out in an "undulating" manner (i.e. in a manner that allows for curvature in the unit boundary vs. having a straight unit line). It was difficult to avoid 200-foot drags. Pictures helped. It was difficult to put the language in context or interpret it during layout. We need to consider what data was needed so we can do a better job next time. We could plan ahead to collect more effective data.

We used a lot of judgement calls for Drop and Leave areas.

CZ Stop 4: Riparian Area Near Pete Forks Campground

This area was done with a cleanup partnership between the Forest Service and the Department of Corrections. Tim Lewis led a 10-person DOC crew with 5 fallers and 5 buckers. However, they have lost their certifier so this might not be an option in the future. A contractor might have been more efficient. But the DOC partnership crew completed between 5 and 10 miles in 10 days despite bad weather and busy hunting season traffic on Road 221 (Grangeville to Riggins road).

We should consider "transfer of risk." This was done safely but were B fallers doing C fallers' work? There is work remaining here. Is there anything we should do differently this year? We fought fires safely in 2015 and implemented safely in 2016 but risk is increasing the longer the trees stand. We should consider certification of the crews. Also, were leave trees left safely? Last year the crew worked 10 hour days but that was too long as there was a concern about fatigue amongst the sawyers. Smaller diameter trees could be felled by the fire crew. Peaveys and chains were used rather than heavy equipment.

For monitoring, we should establish long-term photo plots. We have good documentation of the Indian Hill Fire. No hazard trees were removed and we almost lost the road as a result. We also ended up having to remove hazard trees later, which was more expensive and less safe. Discussion about falling trees on purpose versus letting them fall on their own. They will all end up on the ground so that firefighters have to deal with working among them. How much to cut? Clearcutting versus snagging. It is difficult to communicate the appropriate amount of removal.

Falling hazard trees is a requirement of road maintenance but we seldom do it. Cutting snags will leave root wads in place to hold road cut banks; if they tip over they pull the roots out and that leads to slumps.

In Drop and Leave units the commercial value of the trees was an issue.

How much down woody debris in riparian areas is appropriate? Can there be too much? We have been managing RHCAs and landslide prone areas as "hands off" while we're doing restoration elsewhere. Harvesting and replanting might be better in landslide prone areas rather than letting snags fall and pull out the root wads. Also we should discuss the appropriate width of riparian "buffers." PACFISH buffers may not be appropriate compared to actual riparian

zone. PACFISH was never meant to be hands-off. We may be able to consider programmatic BAs for similar actions. Commercial thins in riparian areas would be the easiest to get through consultation.

CZ Stop 5: Pete Forks Campground

How to remove cut and stacked MH rounds? Cost to remove with a dump truck and loader could be $3,000 to $5,000 to haul to Musselshell. Hazardous fuels funding may be possible. Also could offer as free firewood area. Should encourage firewood cutters to cut in the area.

CZ Stop 6: Decommissioned Road #1, Downstream from Yakus Creek Hatchery

Need to be sure we no longer need roads for minerals, vegetation management, recreation, etc. before decommissioning. Need an integrated discussion.

CZ Stop 7: Decommissioned Road #2

Monitoring: Need annual reports, intuitive file structure, possibly searchable spreadsheet/database.

Today's tour would be a good one for the tribe. Will need field reviews after Wapiti and Woodrat.

June 14th, 2017 (South Zone)

SZ Stop 1, Rooney Basin:

Some units were dropped because of perceived potential soils issues.

In deciding whether an area would be considered for harvest, the area had to have a minimum average 10" DBH across the acreage and 16 MMBF per acre. Anything smaller than this would not have been commercially viable.

In the Rooney Basin area, the trees met the minimum diameter and volume requirements for creating a harvest unit. There were different NEPA teams working on different projects at the same time which caused some overlapping within geographic areas. There was a decision made at higher levels to separate NEPA projects. The Blue Team was looking at the analysis for this area. Got word that a decision was made that would not allow any tractor logging on any severely burned acres. That caused the harvestable acreage to decrease from nearly 500 hundred acres down to 89.

There were crews out prepping the entire 500 acres, which put people at significant risk working under the burned timber. When word came that all of this acreage could not be harvested it was a morale buster. Now, there are many acres of standing dead trees that have lost their commercial value and we are doing nothing in the area. This is pine stand that now has bluing and no value left to capture.

Part of the decision to step away from this acreage was because there was direction that in order to include it, more soils work (field) would be required to validate whether or not machinery could operate. A decision was made not to put more people in the field at risk.

The Van Keating / Chair Point areas gave the perception of connected actions.

Plant Creek presented watershed-specific issues because it is a very small watershed with specific requirements.

Plant Creek Drainage: Plant Creek was just a trickle when the harvest units were being set up. Crews had a hard time figuring out what was causing the concern.

Question: Are we recognizing these issues as we develop the new Forest Plan? We should be.

There are concerns about the baseline interpretation of high severity burn and how related to detrimentally disturbed soils. It seems counterintuitive. The soils are already disturbed by the fire, an argument could be made that harvest operations could actually make the situation better.

There is a feeling that people already had their minds made up esp. about soils.

The Forest Plan needs to have a larger look at soils in particular.

Things to consider in the future:

1. After fire, the soils are already disturbed. Are we adding additional disturbance by conducting harvest operations? If the soil disturbance is already 100% how can harvest operations cause additional disturbance?

2. Sediment modeling – should the burn be used as the baseline or should is the burn additive to the baseline? The argument is that the burn is now the baseline.
3. Does it make a difference whether the burn is natural or human caused (prescription)? It seems the hydrologist should be analyzing what is physically on the ground at the time.
4. What is detrimentally disturbed? Need to look at the definition / application. Maybe need to have a different definition for natural fire.
5. Perhaps the conversation should be changed. Would it have made more sense to for the project to have come in as a soil restoration / hydrology exercise…NOT timber?
6. Can an area be severely burned and NOT detrimentally disturbed?

Question: How was the severity mapped? BARC Map.

If there had been harvest, receipts from the timber sale would have been put towards planting (through the KV Plan). Since it was not harvested, there will be no planting. The decision was that any money made from harvest would go to reforestation. No harvest=no money and no reforestation.

Drop and leave: How does drop and leave safety factor come in? They were looking at the big trees. It became a pick and choose situation. Many of the trees last year were still green – now they are dead. The project was done during hunting season. Many hunters had been using the same sites over and over for the past several years (i.e. they consider them to be "special") – everything was cut that could hit a person, tent, camper, etc. The type of tree made a difference in selection. It was found that the pines were still pretty solid, however, the grand fir had already started to rot out. Down on Allison Creek dropped trees became an impediment to moving cattle. The original plan called for an acreage split of 80% commercial removal and 20% drop and leave, however after much discussion and subsequent decisions, the acreage was reversed—resulting in about 20% commercial removal and 80% drop and leave. There is a recognized increased safety risk but decisions were made based on public comments.

Effects of Logging:

The final decision did not allow machines off of the roads. On areas that were flat this was a problem. It cause some gouging of the ground as logs were skidded across. It also meant that there was much more hand falling which increased the risk to the fallers. There is a concern that we knowingly increased risk.

Looking at what was able to be accomplished after the final decision, it is felt that we didn't mitigate hazards in this area. There are still many, many trees that will eventually fall down over time, which will likely create a future fire hazard with "jack strawed" trees on the ground.

SZ Stop 2, Squaw Saddle / 263 Road:

Landslide Prone Discussion:

Question: Could you dry lab all landslide prone areas in the office? Maybe. Landslide prone areas are defined by many things including slope, geology, aspect, etc. Mapped landslide prone has been found to be overestimated from field recon.

There has been conversation about how landslide prone is defined. Field verification may include more specific criteria in the future.

There is a new modeling effort – based on lidar which identifies areas of past movement – next version will be a finer filter than used now – smaller polygons.

Voodoo Magic? – Landslide prone and the designation of it needs more clarity. Need some type of consistent filter.

Field verification of landslide prone will be a requirement of the new Forest Plan.

Models are really the same as wildlife – it gives a starting point on a map where you need to start looking.

Question: In a fire situation, is it better or worse to leave it alone? Maybe we should take the weight off of the hillside? This is hard to do under the current Forest Plan and the current interpretation of the Pacfish/Infish rules. Maybe need to re-look at our interpretation.

There are some areas that may also need to be revisited on Hungry Ridge depending on interpretation.

Pointed out where fire had burned through previous to the Teepee fire and how this area helped slow down the progression of the Teepee fire. It is important to have these types of openings from a fire fighting perspective.

Continued General Discussion:

Only roads that are open ended up in the approved NEPA. Originally, closed roads were also included in the treatment prescription. This ended up being a negotiation point. Closed roads were removed after certain groups commented. Decision was driven by politics.

In some Zones, areas were analyzed twice – some thought that this would allow work to be done on whether NEPA that was approved. This wasn't done in the South Zone. In other Zones it was a conscious decision but it was hard to explain to the public. We also need to remember that projects were set up under an emergency declaration. There were expected timelines for both completion of NEPA and implementation. This added additional complexity.

Question: So now that we've determined that the area is hazardous, have we upped our liability? Should we do another roadside CE to take out additional trees? Have we set ourselves up for lawsuit? Have we set precedent? This may need to be revisited and another project may need to be created.

It was pointed out that a previous engineer on the forest shied away from dubbing anything "hazardous" – he felt it raised risk to the agency.

Other places have installed signs announcing the risk. Is that better?

The FS didn't make any money on the project but got some acres treated. The drop and leave project cost about $1,100.00 per day using the inmate crew. This is something to think about for future projects.

SZ Stop 3, Tong Throwing Area:

No log suspension, which resulted in logs being skidded on the ground. In this area the operator threw the tong over the hill. This was done because equipment was not allowed off of the road. A better option would have been tractor with designated skid trails. That way the area could have been scarified and reseeded. Decision to do it this way was because of soils – moderate to high burn severity.

Drop and Leave Area near Tong Throwing Area:

There was lots of recreation and hunting traffic in this area. The signing of the decision was delayed several times which caused operations to be delayed until hunting season. Logging also was happening when the drop and leave operation was started. There was a lot of coordination that had to happen to maintain safety. This could have been better. The crew also had to have discussions with the logger to ensure that he didn't pick up the drop and leave logs to take to market.

Snags / Wildlife:

Bollenbacher – Forest Plan – Jim Lutes had a discussion with Cheryl – there are a certain number of snags that need to be left per acre – does that mean within the harvest unit or the project area? There are no shortage of snags on the forest! If you account for all the snags left across the fire, there are plenty. Not everyone agrees with this, for example, the Regulatory Agencies had trouble – they thought the project was going to produce miles and miles of clearcut. The drop and leave option was huge for the Regulatory Agencies because they felt that animals would use the dropped trees as cover when they were crossing the road…but then they also wondered if the dropped trees would create a barrier for animals that wanted to cross the road. This led to a long drawn out process for the Lynx BA. There was also an issue with the BA's for wildlife and fish in that there were two different processes used. The wildlife BA took from the purpose and need, while the Fish BA was an interpretation of the project. There needs to be consistent direction up front on how the BA's are to be developed.

Rangers need to clearly define whether wildlife trees will be accounted for in units or across the project area at the front end of the project.

We need to answer questions such as; Are RHCAs to be removed from the unit but not the project area? For example: the RHCA has tons of snags… we may not need to retain in the unit – this goes back to the discussion on snags evenly distributed over 100 acres.

Line Officers – they are the decision makers. Specialists need to remember that they do not decide the risk. There is a feeling that some specialists may not understand what their role is. The IDT needs to understand their role. One ranger has seen a lot of bias in specialist reports.

Fire Fuels:

Drop and leave is generally a concern. In this case there wasn't a lot that was put on the ground and as time has passed, things are looking better.

Question: What is the plan for open areas? Plan to replant but not at a dense level. Thinking 16' x 16' or 18' x 18' spacing.

Emphasized that openings make great fuel breaks.

Silviculture stated that there are stocking charts that they have to go by. There is some flexibility esp. in the drier Salmon River area.

We need to be looking at stocking levels that we would be ok with in these areas. Need to consider more than just silviculture (fire, range, wildlife, etc.). Need to look at other projects (e.g. Hungry Ridge). Plan to get the Region involved in the conversation. Have to be smarter on the front end of projects.

Coarse Woody Debris:

Regulatory Agencies concerned about commercial areas esp. ridgetops. Jim analyzed those areas and provided that information to the agencies. The concern was that the animals wouldn't cross the road if there was too much down material. Jim had to explain that there would only be segments of roads that had down woody material. The agencies envisioned miles and miles of down woody material that might effectively cause a fence situation.

Elk Vulnerability:

Dealing with this now in analysis. Wildlife may need to talk to other specialists to create a larger plan. There is a model that is required that hasn't been run on most projects in the past. This is a significant issue for the timber program. The elk issue is double edged – if we are good at management and create more habitat…elk numbers increase… then we have another issue with increased vulnerability.

Roadless areas actually have less elk than roaded areas.

We need to do a better job of explaining that opened areas will grow back and will provide cover in the near future. There are projects across the forest that were completed in the last 10 to 20 years that can be shown to others now that are providing great cover.

Road Decommissioning:

We have done a very good job of road decommissioning over the last years (over 900 miles), but this has not been captured consistently in our analysis. We need to do a better job of this.

Design and Mitigation:

Less is more when it comes to mitigation. More words make it sound like we are trying to make a really bad thing better.

There is a standard Pick List. We need to be using it. Pick list was designed to use as few words as possible. Variations away from the pick list need to be approved by the Line Officer. Word smithing should not be done as it causes ripples and problems for other disciplines.

We also need to be consistent between the pick list and the body of the reports.

Scott will send out Pick List to the FLT and they need to send it out to their reports.

BMP world is becoming more important as well. Word smithing is a problem. As soon as you change words in a BMP, it becomes a specialized mitigation measure.

Right now Regional direction is to write BMPs within the document rather than reference them.

Overall Project Satisfaction:

Staff does not feel proud of this project. It was a morale killer for the timber staff. There was a lot of time spent and risks taken working under burned trees…then to have most of that work dropped from the project was very disappointing. The ranger reiterated all of the work done by staff and said that they worked hard to re-define success, but it was difficult.